REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 16-30 are presently active in this case. Claims 1-15 were cancelled by a Preliminary Amendment. The present Amendment amends Claims 16-19 without introducing any new matter.

The December 14, 2007 final Office Action rejected Claims 16-18, and 21-29 under 35 U.S.C. § 102(b) as anticipated by Bonnefort et al. (U.S. Patent No. 5,666,836, hereinafter "Bonnefort"). Claims 19-20 and 30 were indicated as allowable if rewritten in independent form.

The April 10, 2008 Advisory Action upheld the rejections of the final Office Action, is response to a non-entered Amendment filed on March 14, 2008.

Applicant acknowledges with appreciation the indication of allowable subject matter. However, since Applicant believes that Claim 16, from which Claims 19-20 and 30 depend, defines patentable subject matter, Claims 19-20 and 30 are maintained in dependent form at present time.

In response, independent Claim 16 is amended to recite "measuring, during a leveling operation, an absolute separation value between an upper and a lower leveling assembly of the two leveling assemblies." These features find non-limiting support in Applicant's disclosure as originally filed, for example at Fig. 1, sensors 6 and 6', and at p. 10, ll. 11-15. Dependent Claims 17-18 are amended to correspond to the changes of independent Claim 16. Moreover, dependent Claim 19 is amended to recite "measuring leveling forces on at least on each side of the leveler," to correct a minor informality so that this feature corresponds to the last line of the claim. This feature also finds non-limiting support at least in dependent Claim 21. No new matter has been added.

In response to the rejection of Claims 16-18, and 21-29 under 35 U.S.C. § 102(b), Applicant respectfully requests reconsideration of this rejection and traverses the rejection, as discussed next.

Briefly recapitulating, Claim 16 relates to a method of increasing precision in controlling a path of a product through a roller leveler. The method comprises, *inter alia*: presetting the imbrications of the rolls by using a presetting model including a reference value for presetting the imbrications; ***measuring, during a leveling operation, an absolute separation value between an upper and a lower leveling assembly***, and comparing the value with the reference value, and setting the position of the leveling rolls to keep the measured value equal to the reference value so as to keep the path of the product to be leveled in the leveler in accordance with an undulation of the leveled product predicted by the presetting model.

Next, the features of Applicants' independent Claim 16 as discussed in the specification are explained in a non-limiting example. When measuring a separation distance in a roller leveler, there is a substantial difference between a true separation value between the upper and lower leveling assembly when the leveler is operated ***under load***, and a separation value of the upper and lower leveling assembly when there is no load. (Specification, p. 3, ll. 18-32.) The position of the upper leveling assembly 2, the upper rolls 4, 5, and the upper portions of the support columns will not have a fixed position during a leveling operation. These elements will move and change their position when mechanical pressure is exerted on them, for example by the leveling force when processing a sheet. (Specification, p. 14, ll. 4-13, "deformations of the leveler.")

Leveling forced of such roller levelers may be between 1000 and 2500 tons, and which such high forces, the leveler may be stretched so that the existing separation value between the leveling assemblies is between 2.5 mm to 5 mm. (Specification, p. 4, ll. 13-27.)

In addition, the variations of stretch during the leveling operation of one plate can be in the range of ± 1 mm. Therefore, to obviate the drawbacks of the background roller leveler, the features of Applicants' Claim 1 allow to measure the true separation value under load, when the roller leveler is operating. As shown in a non-limiting example in Fig. 1, this measurement can be done by sensors 6, 6', at the entry and exit side of the leveler. (Specification, p. 13, ll. 4-17.) Please note that the above discussion is for explanatory purposes only, and is not intended to limit the scope of the claims in any fashion.

Turning now to the applied reference, Bonnefort describes a process for smoothing a metal strip having a stretcher-and-roller leveling planisher. (Bonnefort, Abstract, Fig. 1.) Bonnefort's process uses a leveling assembly 5 including two chassis, each supporting a row of parallel rollers that can be offsetted longitudinally and in height. (Bonnefort, col. 5, ll. 28-44. Fig. 1, elements 5, 50, 50', 51, 52.)

Moreover, the position of Bonnefort's lower rollers 51' can be varied by use of the adjustment jack 64 and 66. (Bonnefort, col. 6, ll. 6-10, Fig. 1.) With the adjustment jack 64, the vertical position of the lower rollers 51' can be modified. (Bonnefort, col. 5, ll. 50-54, Fig. 1.) Moreover, with adjustment jack 66, the cradle 6' that holds lower rollers 51' can be swung around the circular axis defined by tracks 65. (Bonnefort, col. 5, ll., Fig. 1.) Thereby, the horizontal orientation of the cradle 6' can change its angle relative to upper cradle 6, to change imbrication between input and output rollers. (Bonnefort, col. 5, ll. 6-11, Fig. 1.) But in Bonnefort, the upper rollers 51 cannot be adjusted, and their position is never measured.

For control purposes, Bonnefort explains that measuring devices M1-M5 can measure positions of the jacks 36, 36a, 44, 64, and 66, and thereby a regulator is enabled to command a correction to the adjustment jacks. (Bonnefort, col. 6, ll. 25-41.) These measuring devices allow to provide for a measurement value of any position set for the jacks 36, 36a, 44, 64, and 66.

But Bonnefort has no means to measure the position of upper cradle 6, and the rollers 51, 52 that are arranged on the upper cradle 6, especially if the cradle 6 and rollers 51, 52 are deformed by high forces during planishing. As explained above, Bonnefort's system can only measure the positions of the jacks that may operate the lower cradle 6 and its rollers 51', but if these are deformed by external forces, the change of separation due to deformation will not be measured. However, Applicant's Claim 16 requires a step of measuring, ***during a leveling operation, an absolute separation value*** between an upper and a lower leveling assembly. Bonnefort's system cannot measure the absolute separation value because his regulator only gets positional information from adjustable jacks 64, 66. There is nothing in Bonnefort that would allow either a direct measurement of the absolute separation value when the planishing is performed, or an indirect measurement by measuring a position of the upper cradle 6 with upper rollers 51.

The Advisory Action rejects these features and states "a signal furnished by a measuring device M1 to M5 indicating the respective positions of the corresponding devices at all times, enabling the regulator to immediately command the correction needed in order to adapt the effect of the device in question to the command given at the same time by the automatic system 8." (Advisory Action, p. 2, ll. 8-11.) However, the "respective devices" are the set positions of the adjustable jacks 36, 36a, 44, 64, and 66, as explained in Bonnefort at col. 6, ll. 14-32. In the case the rolls 51, 51', 52, 52' are deformed by strong forces, or the assemblies 6 and 6' are deformed, the measuring devices M4 and M5 will not be able to measure such deformation, but only the position of the adjustment jacks 64 and 66, and thus cannot measure a true separation value during operation.

Therefore, the applied reference fails to teach every feature of Applicant's claims, so that Claim 16 is believed to be patentably distinct over Bonnefort. All remaining Claims 17-30 are also believed to be allowable by virtue of their dependency upon independent Claim

16. Accordingly, Applicant respectfully traverses, and requests reconsideration of, the rejection based on Bonnefort.

In addition, Applicant respectfully submits that Bonnefort fails to teach all the features of Applicant's dependent claims. For example, dependent Claim 21 is directed to an installation that requires a device configured to measure leveling forces at least on each side of the leveler. Bonnefort does not describe any device for measuring ***leveling forces***. In Bonnefort, measuring device M1 to M5 measure the absolute ***positions*** of different elements in the system, for example the screw jacks 64, 66, as discussed above. (Bonnefort, col. 6, ll. 32-41, Fig. 2.) However, no leveling forces are measured. Bonnefort merely has an anti-transversal camber device 4 that can adjust the pressure applied to the strip. (Bonnefort, col. 5, ll. 11-18, Fig. 1.) Therefore, it is apparent that Bonnefort fails to teach all the features of Applicant's dependent Claim 21, and therefore Applicant respectfully traverses the rejection, and requests reconsideration thereof.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 16-30 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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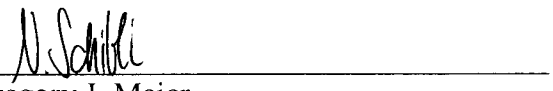

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